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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/171,960	10/29/1998	ROBERT D SPINDLEY	36-1287	8693

7590 10/17/2002

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EXAMINER
FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 10/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/171,960	SPINDLEY ET AL.	
	Examiner	Art Unit	
	Derrick W. Ferris	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 September 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17 and 21-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17 and 21-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 September 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. **Claims 1-17 and 21-23** as amended are still in consideration for this application. Examiner notes claims 1,2,8,11,13,14, and 15 as amended and claims 21-23 as newly added. Applicant canceled claims 18-20 without prejudice.

2. Regarding the drawings in reference to Office action 4/5/02 line item 2, examiner accepts changes to the drawings made by applicant. The drawings have been approved by the draftsperson.

3. Examiner withdraws objection(s) to the specification. Examiner thanks applicant for making changes including a new title (in reference to Office action 4/5/02 line items 3 and 4).

4. Examiner withdraws 112-second paragraph rejection since applicant canceled the relevant claims (in reference to Office action 4/5/02 line item 5).

5. The amendment filed 9/5/02 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: while amending the claims applicant added that each link having an associated low level processors of the node before the signal is processed by higher level functions running on higher level processors of the node and specifically claiming that "there being fewer higher level processors than lower level processors". Examiner notes no such information explicitly taught by applicant in the original application. Specifically, examiner notes references to processors on page 6, line 26 (in reference to figure 3); and page 9, lines 4, 11, 13, 14, 25, 30, 31, and page 10 line 9 (in reference to figures 8 and 9) with no reference to a

lower and high level processors (emphasis processors and not processes). Examiner notes applicant states the following in the written disclosure:

> *"Although in figure 8 just a single instance of each element is shown, in practice the exchange will usually comprise a single Call Processing System connected to multiple processes. Each processor may consolidate traffic from a hierarchy of transport processes and signaling hardware modules" [page 10, lines 7-10].*

However, there is no mention of how this is to be implemented in addition to whether there are fewer lower level processors than higher-level processors (or whether there are even lower level and higher level processors as opposed to just one processor). Hence examiner notes a hierarchy of processes (and not processors) may be taught by the reference. It is also noted that this does not mean, however, that there are more lower-level processors (or processes) than higher-level processors (or processes). It is furthermore noted that applicant appears to draw more from what is recited in the specification. For example, applicant states the following in the summary:

> *"(b) within a lower level of a messaging protocol running on the node and prior to the processing of the signal by higher level functions running on the node, overwriting the control field value with a value from a restricted set subset of the plurality of possible values" [page 2, lines 17-20]*

From this information applicant attempts to claim the following:

> *"each link having an associated low level processor feeding signals to one of more higher level processor within the node, there being fewer higher level processors than low level processors" [claim 1 as amended, lines 4-5].*

Taught by applicant is performing an action on a low level of a message protocol (and not necessarily a low level processor). As mentioned previously, applicant does not disclose the number of low or high level processors (in fact applicant only discloses a general processor that could be either a high or low level processor). Instead the specification makes reference to

"higher level functions running on the node" (not clearly specifying is where these functions actually run within the node). Finally, it is noted applicant's abstract also does not mention anything about a lower or higher level processor strongly suggesting that applicant has attempted to add this information in hindsight.

Assuming arguendo that the recited amended subject matter presented is disclosed by applicant (with reference to processors and not processes) then examiner would withdraw the obviousness rejection stated in Office action 4/5/02 line items 6 and 7, and as amended herewith this final rejection. However, currently this rejection still stands based on applicant's amended claims (in light of a broad but reasonable interpretation of applicant's specification). Applicant is correct in noting that Weisser '633 does not mention at what layer a comparison is to take place using predetermined values (however examiner notes using a broad but reasonable interpretation of the amended claims in light of applicant's specification, that the rejection could still stand, emphasis on a broad but reasonable interpretation of "prior to the processing of the signal"). With respect to the claimed subject matter, applicant is strongly encourage to view the differences between applicant's specification and the recited prior art, examiner emphasizes the Clarke reference does teach away from performing a comparison at the protocol engine 64 lower layer (i.e., layer 2). Instead this comparison takes place at the MTP level 3, block 80 with reference to Clarke figure 8. Emphasis column 8, lines 36-56 (see rejection below for a more detailed explanation).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1-17 and 21-23 (as amended)** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,550,914 to Clarke et al. in further view of WO 95/35633 to Weisser.

As to **claims 1, 2, 8, 13, 14, 15, 18, 21, 22 and 23**, figure 4 of Clarke et al. ("Clarke") shows an operating node (52) (i.e., message interceptor) connected to a single external source (48 or 49) (i.e., signaling transfer point). The operating node (52) receives messages called "signaling units" (40) as shown in Figure 3 that contain a control field and can be handled according to the value(s) in the control field [column 6, lines 30-67; column 7, lines 1-17]. As shown in Figure 5, the message unit (MSU) (52) contains a protocol engine (64,65) for Level 2 protocols (i.e., lower-level of a messaging protocol) and a respective data extraction circuit (66,67) for extracting Level 3 information from each MSU (or "signaling unit") received at the interface (60). It is noted that each message interceptor may either act as a message suppression action or a message modification action [column 7, lines 47-49] where it is possible to modify different portions of the MSU (or "signaling unit") including control fields [column 10, lines 35-59]. Thus it may also be implied that subsequently processing the signal in the network may (or could) be dependent on the control field being overwritten or modified.

Not clearly disclosed by Clarke are comparing fields of each incoming message with prestored permissible values and taking corrective action in the event of determining at least one value is permissible at a lower layer. Instead Clarke acknowledges that this is usually done at a higher layer (Emphasis column 8, lines 36-56 in reference to Clarke figure 7). As additional support, Weisser '633 describes such a comparison but is silent on where such a comparison takes place. Thus examiner notes that using a broad but reasonable interpretation of the claims, that Clarke does perform overwriting certain fields at the lower layer functions (i.e., level 2 protocol engine) [column 2, lines 35-67; column 3, lines 1-2 with strong emphasis on column 2, lines 64-67]. Thus taught by the summary of Clarke is that the comparison takes place somewhere along the way (i.e., included in at least one of said transfer means). Taught specifically in the discloser is that this comparison takes places at layer 3. However, noted in general is that this process takes places as a separate function, prior to the processing of higher layer level processes (such as at the application level). Thus it would have been obvious to a skilled artisan prior to applicant's invention using a broad interpretation of the claims to perform a comparison at a lower layer process. In addition, not clearly taught by the reference is a method for communicating between two separate networks where one network is an external network, although the background of Clarke et al. suggests a motive for using the operating node (52) to communicate between two related but separate network infrastructures [column 1, lines 19-21]. Thus it is determined by the examiner that it would have also been obvious to apply this solution towards an external network due to the above reason. Furthermore, in a separate application that also provides mediation

between two control signaling networks, Weisser discusses in the abstract a method of mediation of data packet traffic across a particular interface between the Advanced Intelligent Network (AIN) (i.e., communications network) operated by a local exchange carrier and a non-local exchange carrier service provider (i.e., signal source external to the communications network). The Weisser reference also points out similar anticipations to the elements described above. Since these two references attempt to solve the same problem of control protocol mediation, it would have also been obvious to combine these references so that an external network (as taught be Weisser) is used in lieu of a separate network that may or may not be external.

Both references disclose signaling in a telecommunications network in general and an SS7 network specifically, thus creating a motivation for combining the subject matter as a whole for both references.

As to **claims 3, 9 and 16**, Clarke et al. teaches a protocol engine (62, 63) that acts generally in the same manner as a standard Level 2 protocol engines for the message transfer point (MTP) [column 7, lines 64-69]. It is also pointed out that the operation of the link portion (62) is maintained at link level (MTP Level 2) by the protocol engine [column 8, lines 23-30] when Level 3 information (i.e., network layer functions) is extracted.

As to **claim 4 and 10**, figure 3 of Clarke et al. shows a routing field (43) used for routing the MSU. Although Clarke et al. does not discuss inserting a predetermined destination point code (14) into the MSU it would have been obvious given the reference to modify a predetermined destination point code (14) using a predetermined address

since the reference allows routing information to be changed within the MSU using the modification circuit (79) [column 10, lines 35-58].

As to **claim 11**, see the same reasoning behind the rejection to claim 10.

As to **claims 5, 6, 7 and 12**, the routing of signals in the reference could be of type SS7 (a common channel signaling protocol) over a point-to-point connection as shown in Figure 4 [column 4, lines 54-60].

As to **claim 15**, see the same reasoning behind the rejection for claim 15.

As to **claim 18**, in addition to the 112 rejection, it is noted by the examiner that Clarke et al. teaches a basic form of policing using the selective action control circuit and that certain actions can be taken [column 7, lines 31-36] including changing the routing label (43) [column 7, lines 5-18] which includes the SLS, OPC, SIO, and DPC (referring to figure 4 of application and figure 3 of Clarke et al.).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-3900.

Derrick W. Ferris
Examiner
Art Unit 2663

DWF
October 14, 2002

MELVIN MARCELO
PRIMARY EXAMINER